

IN THE CLAIMS

1. (Currently Amended) A system for serving information data over one or more channels to one or more end user devices, comprising:

a plurality of storage medium units for storing information data, wherein said plurality of storage medium units include an archive storage medium unit which contains said information data and a plurality of delivery storage medium units that stores said information data from said archive storage medium unit as needed;

managing means for managing distribution of the information data to any one of the end user devices, wherein the managing means receives demand data relating to information data selected through at least one respective end user device, and wherein the managing means outputs distribution control data including channel information of the selected information data and routing information for said at least one end user device; and

routing means for connecting the one or more delivery storage medium units to the at least one end user device, and for routing the selected information data from the delivery storage medium units and the distribution control data from the managing means, wherein

the managing means manages the distribution of the information data from one or more of said delivery storage medium units to an appropriate one or more of the end user device(s) in accordance with a predetermined number representing a number of said one or more end user devices such that the number of delivery storage medium units utilized is increased when the number of end user device(s) exceeds the predetermined number,

~~whereby each of said plurality of delivery storage medium and said archive storage medium unit includes a controller~~ wherein said information data are divided into a predetermined number of data groups, and the information data are divided into T (T=2,3,4...)

sentences, wherein T depends on the number of channels, wherein the predetermined number of data groups is recorded in the storage medium unit in such changed order that Nth ($N=1,2,3,4,\dots$) data group of the last sentence of the information data appears after the Nth data group of the first sentence and wherein said routing means deliver a continuous stream of information data to the end device by switching said data groups from the storage medium unit between virtual channels.

2. (Original) An information server system according to claim 1,
wherein said routing means comprises at least one ATM switch.
3. (Previously Amended) An information server system according to claim 1,
wherein said information data are video and/or audio data.
4. (Previously Amended) An information server system according to claim 1,
wherein said demand data include a public address assigned to the selected information data.
5. (Previously Amended) An information server system according to claim 1,
provided with control means for controlling the storage medium unit according to the
distribution control data so that the storage medium unit outputs the selected information data
including routing information to the routing means.
6. (Previously Amended) An information server system according to claim 1,
wherein the managing means provides program data for the output of visual information through

display means and/or audio information through speaker means from the storage medium units on the at least one end user device.

7. (Previously Amended) An information server system according to claim 1, wherein the managing means provides program data for information retrieval to the at least one end user device.

8. (Previously Amended) An information server system according to claim 3, wherein said information retrieval comprises video on demand.

9. (Previously Amended) An information server system according to claim 1, further comprising:

at least one second storage medium unit for storing second information data and connected with the routing means wherein the managing means comprises a table for storing data representing information data allocation to the first and second storage medium units, and wherein the managing means provides distribution control data for the first [or the] and second storage medium units based on the demand data from the at least one end user device.

10. (Previously Amended) An information server system according to claim 3, wherein said one or more storage medium units comprise:

memory means for storing video and/or audio data;

table means for memorizing data representing a relationship between the routing information and the video and/or audio data stored in the memory means;

program memory means for storing program data for controlling the one or more storage medium units; and

at least one interface for transmitting the video and/or audio data with the routing information and a control signal in one or more packets to the routing means and for receiving the program data in one or more packets from the routing means.

11. (Original) An information server system according to claim 10, wherein said routing information relates to one or more virtual channels and said interface is an ATM interface.

12. (Previously Amended) An information server system according to claim 10, wherein said at least one interface receives control data representing a selected operation mode for the at least one end user device and wherein the controller controls the memory means according to the received control data so that the information data is reproduced from the memory means in the selected operation mode.

13. (Original) An information server system according to claim 12 wherein said operation mode comprises still mode, fast forward mode, reverse mode and/or mosaic mode.

14. (Previously Amended) An information server system according to claim 3, wherein said video and/or audio data is divided in a predetermined number of data groups, wherein the predetermined number of data groups is recorded in a sequence different from an

original sequence on a recording medium in said one or more storage medium units and wherein said routing means delivers continuous video and/or audio data to the at least one end user device by switching said data groups from said one or more storage medium units to said one or more end user devices.

15. (Original) An information server system according to claim 14, wherein said recording medium is an agile disk and wherein a first portion of said data group is recorded on every N-ths ($N = 1, 2, 3 \dots$) track of the disk, and remaining portions of said data groups are recorded on remaining tracks of the disk.

16. (Original) An information server system according to claim 15, wherein the first portion of said data groups is reproduced by moving a head in a first direction and the remaining portion of the data groups is reproduced by moving the head in a second direction opposite to the first direction.

17. (Previously Amended) An information server system, for serving information data comprising video and/or audio data over one or more channels to one or more end user devices, comprising:

one or more storage medium units for storing information data selectable by a respective end user device, wherein each storage medium unit includes a controller for controlling a play mode of said information data stored;

managing means for managing distribution of the information data to any one of the end user devices, wherein the managing means receives demand data relating to information

data selected by the user through a respective end user device, and wherein the managing means outputs distribution control data including channel information of the selected information data and routing information for said end user device;

wherein said controller controls the play mode of a respective storage medium unit in accordance with said distribution control data;

routing means for connecting the storage medium unit to the end user device, and for routing the information data from the storage medium unit and the distribution control data from the managing means; and

wherein said video and/or audio data are divided into a predetermined number of data groups, and the video and/or audio data are divided into T ($T=2,3,4..$) sentences, wherein T depends on the number of channels, wherein the predetermined number of data groups is recorded in the storage medium unit in such changed order that N th ($N=1,2,3,4..$) data group of the last sentence of the video data appears after the N th data group of the first sentence and wherein said routing means deliver a continuous stream of video data to the end device by switching said data groups from the storage medium unit between virtual channels.

18. (Previously Cancelled)

19. (Currently Amended) A system for serving information data over one or more channels to one or more end user devices, comprising:

a plurality of storage medium units for storing information data, wherein said plurality of storage medium units include an archive storage medium unit which contains said

information data and a plurality of delivery storage medium units that stores said information data from said archive storage medium unit as needed;

managing means for managing distribution of the information data to any one of the end user devices, wherein the managing means receives demand data relating to information data selected through at least one respective end user device, and wherein the managing means outputs distribution control data including channel information of the selected information data and routing information for said at least one end user device; and

routing means for connecting the one or more delivery storage medium units to the at least one end user device, and for routing the selected information data from the delivery storage medium units and the distribution control data from the managing means,

wherein said managing means selects a special play mode for supplying an altered sequence of scenes to the at least one end user device by switching channels for supplying the data information to the at least one end user device,

~~whereby each of said plurality of delivery storage medium and said archive storage medium unit includes a controller~~ wherein said information data are divided into a predetermined number of data groups, and the information data are divided into T (T=2,3,4...) sentences, wherein T depends on the number of channels, wherein the predetermined number of data groups is recorded in the storage medium unit in such changed order that Nth (N=1,2,3,4...) data group of the last sentence of the information data appears after the Nth data group of the first sentence and wherein said routing means deliver a continuous stream of information data to the end device by switching said data groups from the storage medium unit between virtual channels.

20. (Currently Amended) A system for serving information data over one or more channels to one or more end user devices, comprising:

a plurality of storage medium units for storing information data, wherein said plurality of storage medium units include an archive storage medium unit which contains said information data and a plurality of delivery storage medium units that stores said information data from said archive storage medium unit as needed;

managing means for managing distribution of the information data to any one of the end user devices, wherein the managing means receives demand data relating to information data selected through at least one respective end user device, and wherein the managing means outputs distribution control data including channel information of the selected information data and routing information for said at least one end user device; and

routing means for connecting the one or more delivery storage medium units to the at least one end user device, and for routing the selected information data from the delivery storage medium units and the distribution control data from the managing means,

wherein said managing means selects a special play mode for supplying a mosaic of scenes to the at least one end user device by selecting scenes from different channels,

~~whereby each of said plurality of delivery storage medium and said archive storage medium unit includes a controller~~ wherein said information data are divided into a predetermined number of data groups, and the information data are divided into T (T=2,3,4...) sentences, wherein T depends on the number of channels, wherein the predetermined number of data groups is recorded in the storage medium unit in such changed order that Nth (N=1,2,3,4...) data group of the last sentence of the information data appears after the Nth data group of the first sentence and wherein said routing means deliver a continuous stream of information data to

the end device by switching said data groups from the storage medium unit between virtual channels.

21. (Previously Added) An information server system according to claim 1, further comprising navigation means for providing in a predetermined sequence menus which describe said information data.

22. (Previously Added) An information server system according to claim 21, wherein said navigation means outputs to a respective end user device a software program for driving said respective end user device to select said menus in accordance with said predetermined sequence.

23. (Previously Added) An information server system according to claim 1, wherein said distribution control data is in the form of a software program; wherein said managing means downloads said software program to said respective storage medium unit.

24. (Previously Added) An information server system according to claim 1, wherein said one or more storage medium units includes an archive storage medium unit for archiving a plurality of distribution control data output by said managing means.

25. (Previously Added) An information server system according to claim 24, wherein said one or more storage medium units include a delivery storage medium unit for storing said information data selected through the respective end user.

26. (Previously Added) An information server system according to claim 1, wherein said one or more storage medium units store the information data according to said estimate data.

27. (Currently Amended) A system for serving information data over one or more channels to one or more end user devices, comprising:

a plurality of storage medium units for storing information data, wherein said plurality of storage medium units include an archive storage medium unit which contains said information data and a plurality of delivery storage medium units that stores said information data from said archive storage medium unit as needed;

managing means for managing distribution of the information data to any one of the end user devices, wherein the managing means receives demand data relating to information data selected through at least one respective end user device, and wherein the managing means outputs distribution control data including channel information of the selected information data and routing information for said at least one end user device; and

routing means for connecting the one or more delivery storage medium units to the at least one end user device, and for routing the selected information data from the one or more storage medium units and the distribution control data from the managing means; wherein

said distribution control data further includes backup control data for assigning one of said one or more delivery storage medium units to supply the selected information data when another of said one or more delivery storage medium units for supplying the selected information data is malfunctioning,

~~whereby each of said plurality of delivery storage medium and said archive storage medium unit includes a controller~~ wherein said information data are divided into a predetermined number of data groups, and the information data are divided into T (T=2,3,4...) sentences, wherein T depends on the number of channels, wherein the predetermined number of data groups is recorded in the storage medium unit in such changed order that Nth (N=1,2,3,4...) data group of the last sentence of the information data appears after the Nth data group of the first sentence and wherein said routing means deliver a continuous stream of information data to the end device by switching said data groups from the storage medium unit between virtual channels.

28. (Previously Amended) An information server system according to claim 27, wherein said one or more storage medium units store the information data according to said backup control data.

29. (Previously Amended) An information server system according to claim 28, wherein said managing means manages distribution of the information data according to said backup control data.

30. (Previously Cancelled)